AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended)   A method of authentication and authorization support for Mobile IP version 6 (MIPv6), ~~characterized by~~ comprising:

Transferring between a mobile node in a visited network and a home network of the mobile node, MIPv6-related authentication and authorization information in an authentication protocol in an end-to-end procedure ~~between a mobile node (10) in a visited network (20) and a home network (30) of the mobile node~~ transparent to the visited network over an Authentication, Authorization and Accounting (AAA) ~~AAA~~ infrastructure.

2. (Currently Amended)   The method of claim 1, wherein ~~characterized in that~~ the authentication protocol is an extended authentication protocol.

3. (Currently Amended)   The method of claim 1, wherein ~~characterized~~ the end-to-end procedure is between the mobile node ~~(10)~~ and an AAA server ~~(34)~~ in the home network ~~(30)~~ and nodes in the visited network act as mere pass-through agents in the end-to-end procedure.

4. (Currently Amended)   The method of claim 3, further comprising ~~characterized by further~~ transferring MIPv6-related information from the AAA server ~~(34)~~ in the home network ~~(30)~~ to a home agent ~~(26; 36)~~.

5. (Currently Amended)   The method of claim 1 ~~or 4~~, wherein ~~characterized~~ the MIPv6-related information further comprises MIPv6 configuration information. ~~Comprises information selected from the group of MIPv6 authentication, authorization and configuration information.~~

6.   (Currently Amended)   The method of claim 5, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred over the AAA infrastructure for immediate or future establishment of a MIPv6 security association between the mobile node <s>(10)</s> and the home agent <s>(26;36)</s>.

7.   (Currently Amended)   The method of claim 5, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred over the AAA infrastructure for establishing a binding for the mobile node <s>(10)</s> in the home agent <s>(26; 36)</s>.

8.   (Currently Amended)   The method of claim 2, <u>wherein</u> <s>characterized</s> the extended authentication protocol is an extended Extensible Authentication Protocol (EAP) and the MIPv6-related <u>authentication and authorization</u> information is incorporated as additional data in the EAP protocol stack.

9.   (Currently Amended)   The method of claim 8, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred in at least one EAP attribute in the EAP protocol stack.

10.   (Currently Amended)   The method of claim 9, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred as EAP attributes of the method layer in the EAP protocol stack.

11.   (Currently Amended)   The method of claim 10, <u>wherein</u> <s>characterized</s> the EAP attributes are EAP TLV attributes.

12.   (Currently Amended)   The method of claim 9, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred in a generic container attribute available for any EAP method.

13.   (Currently Amended)   The method of claim 9, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred in a method-specific generic container attribute of the method layer in the EAP protocol stack.

14.   (Currently Amended)   The method of claim 1, <u>wherein</u> <s>characterized</s> the authentication protocol between the mobile node <s>(10)</s> and an AAA client <s>(22)</s> in the visited network <s>(20)</s> is carried by a protocol selected from the group of PANA, IEEE 802.1X, and PPP.

15.   (Currently Amended)   The method of claim 3, <u>wherein</u> <s>characterized</s> the authentication protocol is carried by an AAA framework protocol application between the AAA client <s>(22)</s> in the visited network <s>(20)</s> and the AAA server <s>(34)</s> in the home network <s>(30)</s>.

16.   (Currently Amended)   The method of claim 4, <u>wherein</u> <s>characterized</s> the MIPv6-related information is transferred from the AAA server <s>(34)</s> in the home network <s>(30)</s> to the home agent <s>(26; 36)</s> in an AAA framework protocol application.

17.   (Currently Amended)   The method of claim 16, <u>wherein</u> <s>characterized</s> the home agent <s>(26; 36)</s> is a local home agent <s>(26)</s> in the visited network <s>(20)</s> and the MIPv6-related information is transferred from the AAA home server <s>(34)</s> to the local home agent via an AAA server <s>(24)</s> in the visited network.

18.   (Currently Amended)   The method of claim 15 <s>or 16</s>, <u>wherein</u> <s>characterized</s> the AAA framework protocol application is an application of a protocol selected from the group of Diameter, and RADIUS.

19.   (Currently Amended)   The method of claim 4, <u>further comprising</u> <s>characterized by</s>
     assigning, at the AAA home network server <s>(34)</s>,
     a home agent <s>(26; 36)</s> to the mobile node <s>(10)</s>; and

distributing credential-related data for security association establishment between the mobile node and the home agent from the AAA home network server to the mobile node and the home agent, respectively.

20. (Currently Amended) The method of claim 3, <u>further comprising</u> ~~characterized by~~ assigning a home address to the mobile node ~~(10)~~ at the AAA home network server ~~(34)~~.

21. (Currently Amended) The method of claim 20, <u>further comprising</u> ~~characterized by~~ configuring the home address of the mobile node ~~(10)~~ using the roundtrips of a selected EAP procedure.

22. (Currently Amended) The method of claim 19, <u>further comprising</u> ~~characterized by~~

building, at the mobile node ~~(10)~~, a home address for the mobile node using at least a portion of the address of its assigned home agent ~~(26; 36)~~; and

transferring the home address of the mobile node from the mobile node to the AAA home network server ~~(34)~~ using around trip of a selected EAP procedure.

23. (Currently Amended) The method of claim 20 ~~or 22~~, <u>further comprising</u> ~~characterized by~~ transferring the home address of the mobile node ~~(10)~~ from the AAA home network server ~~(34)~~ to the home agent ~~(26; 36)~~ using an AAA framework protocol application.

24. (Currently Amended) A system for authentication and authorization support for MIPv6, ~~characterized by~~ <u>comprising</u>

means for transferring<u>, between a mobile node in a visited network and a home network of the mobile node,</u> MIPv6-related <u>authentication and authorization</u> information in an authentication protocol in an end-to-end procedure between a mobile node ~~(10) in~~ a <u>transparent to the</u> visited network ~~(20) and a home network (30) of the mobile node~~ over an AAA infrastructure.

25.   (Currently Amended)   The system of claim 24, <u>wherein</u> ~~characterized~~ the authentication protocol is an extended authentication protocol.

26.   (Currently Amended)   The system of claim 24, <u>wherein</u> ~~characterized~~ the end-to-end procedure is between the mobile node ~~(10)~~ and an AAA server ~~(34)~~ in the home network ~~(30)~~<u>, and AAA components in the visited network act as mere pass-through agents in the end-to-end procedure</u>.

27.   (Currently Amended)   The system of claim 26, <u>further comprising</u> ~~characterized by~~ means for further transferring MIPv6-related information from the AAA server ~~(34)~~ in the home network ~~(30)~~ toa home agent ~~(26; 36)~~.

28.   (Currently Amended)   The system of claim 24 ~~or 27~~, <u>wherein</u> ~~characterized~~ the MIPv6-related information <u>further</u> comprises <u>MIPv6 configuration information.</u> ~~information selected from the group of MIPv6 authentication, authorization and configuration information~~.

29.   (Currently Amended)   The system of claim 28, <u>wherein</u> ~~characterized~~ the means for transferring MIPv6- related information over the AAA infrastructure comprises means for immediate or future establishment of a MIPv6 security association between the mobile node ~~(10)~~ and the home agent ~~(26;36)~~.

30.   (Currently Amended)   The system of claim 28, wherein means for transferring MIPv6-related information over the AAA infrastructure comprises means for establishing a binding for the mobile node ~~(10)~~ in the home agent ~~(26;36)~~.

31.   (Currently Amended)   The system of claim 25, <u>wherein</u> ~~characterized~~ the extended authentication protocol is an extended Extensible Authentication Protocol (EAP) and the MIPv6-related <u>authentication and authorization</u> information is incorporated as additional data in the EAP protocol stack.

32.   (Currently Amended)   The system of claim 31, <u>wherein</u> <s>characterized</s> the means for transferring the MIPv6-related information comprises at least one EAP attribute in the EAP protocol stack.

33.   (Currently Amended)   The system of claim 32, <u>wherein</u> <s>characterized</s> the means for transferring the MIPv6-related information comprises EAP attributes of the method layer in the EAP protocol stack.

34.   (Currently Amended)   The system of claim 33, <u>wherein</u> <s>characterized</s> the EAP attributes are EAP TLV attributes.

35.   (Currently Amended)   The system of claim 32, <u>wherein</u> <s>characterized</s> the means for transferring the MIPv6-related information comprises a generic container attribute available for any EAP method.

36.   (Currently Amended)   The system of claim 32, <u>wherein</u> <s>characterized</s> means for transferring the MIPv6-related information comprises a method-specific generic container attribute of the method layer in the EAP protocol stack.

37.   (Currently Amended)   The system of claim 24, <u>wherein</u> <s>characterized</s> the authentication protocol between the mobile node <s>(10)</s> and an AAA client <s>(22)</s> in the visited network <s>(20)</s> is carried by a protocol selected from the group of PANA, IEEE802.1X, and PPP.

38.   (Currently Amended)   The system of claim 26, <u>wherein</u> <s>characterized</s> the authentication protocol is carried by an AAA framework protocol application between the AAA client <s>(22)</s> in the visited network <s>(20)</s> and the AAA server <s>(34)</s> in the home network <s>(30)</s>.

39.   (Currently Amended)   The system of claim 27, wherein ~~characterized~~ the MIPv6-related information is transferred from the AAA server ~~(34)~~ in the home network ~~(30)~~ to the home agent ~~(26; 36)~~ in an AAA framework protocol application.

40.   (Currently Amended)   The system of claim 39, wherein ~~characterized~~ the home agent ~~(26; 36)~~ is a local home agent ~~(26)~~ in the visited network ~~(20)~~ and the MIPv6-related information is transferred from the AAA home server ~~(34)~~ to the local home agent via an AAA server ~~(24)~~ in the visited network.

41.   (Currently Amended)   The system of claim 38 ~~or 39~~, wherein ~~characterized~~ the AAA framework protocol application is an application of a protocol selected from the group of Diameter, and RADIUS.

42.   (Currently Amended)   The system of claim 27, further comprising: ~~characterized by~~

means for assigning, at the AAA home network server ~~(34)~~, a home agent ~~(26; 36)~~ to the mobile node ~~(10)~~; and

means for distributing credential-related data for security association establishment between the mobile node and the home agent from the AAA home network server to the mobile node and the home agent, respectively.

43.   (Currently Amended)   The system of claim 26, further comprising ~~characterized by~~ means for assigning a home address to the mobile node ~~(10)~~ at the AAA home network server ~~(34)~~.

44.   (Currently Amended)   The system of claim 43, further comprising ~~characterized by~~ means for configuring the home address of the mobile node ~~(10)~~ using the roundtrips of a selected EAP procedure.

45.   (Currently Amended)   The system of claim 42, further comprising: ~~characterized by~~

means for building, at the mobile node (10), a home address for the mobile node using at least a portion of the address of its assigned home agent (26; 36); and

means for transferring the home address of the mobile node from the mobile node to the AAA home network server (34) using a roundtrip of a selected EAP procedure.

46.   (Currently Amended)   The system of claim 43 or 45, characterized by means for transferring the home address of the mobile node (10) from the AAA home network server (34) to the home agent (26; 36) using an AAA framework protocol application.

47.   (Currently Amended)   An AAA home network server (34) for authentication and authorization support for Mobile IP version 6(MIPv6), comprising: characterized by

means for assigning a home agent (26; 36) to a mobile node (10); and

means for distributing credential-related data for security association establishment between the mobile node and the home agent to the mobile node and the home agent, respectively.

48.   (Currently Amended)   The server of claim 47, further comprising characterized by means for assigning a home address to the mobile node (10).

49.   (Currently Amended)   The server of claim 48, further comprising characterized by means for configuring the home address of the mobile node (10) using the roundtrips of a selected EAP procedure.

50.   (Currently Amended)   The server of claim 48, further comprising characterized by means for transferring the home address of the mobile node (10) to the home agent (26; 36) using an AAA framework protocol application.